Table S1: Summary statistics (median and IQR; 100 simulated studies) for WQS with equal correlation with Y of either 0.1 or 0.2 for 5 selected chemicals (Table 1 and Figure 3). Case A: observed correlation pattern among the chemicals and correlation of 0.1 for 5 selected chemicals with Y; Case B: observed correlation diminished by half and correlation of 0.2 for 5 selected chemicals with Y. A selection threshold of 0.05 was used.

Method	Case A		Case B	
	# Correct	# Incorrect	# Correct	# Incorrect
TRUTH	**5**	**0**	**5**	**0**
WQS regression (with bootstrap step; signal function: relative test statistic)	3 (3,4)	1 (1, 2)	4 (3,5)	0 (0,1)